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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,451	07/06/2005	Tetsuya Masutani	Q88211	8166
23373 7590 02/18/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER ZIMMER, MARC S				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
02/18/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/541,451

Applicant(s)

MASUTANI ET AL.

Examiner

MARC S. ZIMMER

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-47 and 49-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-47 and 49-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

The rejection over Hanada is hereby withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 45, 47, and 49-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Bechtold, U.S. Patent # 3,762,940 and Engelhardt, U.S. Patent # 3,476,827.

Bectold discloses a coating composition comprising the materials outlined in the abstract including a hydroxyl-functional fluoropolymer and a melamine compound. Relevant to the present discussion, it is contemplated in column 7, lines 9-17 that, in addition to these essential compounds, a polysiloxane-polyoxyalkylene copolymer of the type disclosed in Englehardt may be added as an "anti-silking agent". A quick review of Engelhardt, and at column 3 in particular verifies that these polymers adhere to the structural limitations of Applicants' claimed stain-proofing component (B1) where that component is a polydialkylsiloxane with an alkyl-capped polyether chain. In the first example, this compound is combined with the fluoropolymer and curative in an amount consistent with that allowed by claim 50. Also added to the coating formulation is toluenesulfonic acid which is a known catalyst for promoting reactions between

melamine compounds of the type espoused by Bechtold and hydroxylated polymer materials.

It is acknowledged that the Examiner has cited a plurality of references in a statement of anticipation. According to section 2131.01 of the MPEP, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to:

- (A) Prove the primary reference contains an "enabled disclosure; "
- (B) Explain the meaning of a term used in the primary reference; or
- (C) Show that a characteristic not disclosed in the reference is inherent.

In this particular instance, Engelhardt was discussed only because it helped to define the structural makeup of the organosilicone described at column 7 of Bechtold.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 46 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtold, U.S. Patent # 3,762,940 and Engelhardt, U.S. Patent # 3,476,827.

Whereas Applicant claims the fluorine resin in terms of a hydroxyl number, the reference discloses hydroxyl group content in terms of molecular weight per hydroxyl

group. However, both inventions are being used as coating compositions and both describe the same implications of high- and low hydroxyl group content though perhaps indirectly. (That is to say, the reference indicates that high hydroxyl group content lends to greater hardness but the skilled artisan will appreciate that hardness and flexibility are competing effects.) It is, therefore, the Examiner's position that the skilled artisan would select those fluororesins of the prior art having a hydroxyl group per molecular weight range that would coincide with the claimed polymers as a balance of hardness and flexibility is always sought when preparing coating formulations.

As for claim 52, the prior art teaches the preparation of coatings in organic solvents. However, the demand to eliminate VOCs from all manner of consumer use products drives a trend towards preparing coatings and other chemical compositions as waterborne formulations wherever feasible. There is a wide array of prior art documents that demonstrate that it is known how to prepare aqueous emulsions/dispersions containing each of the materials required by the claims and, thus, the conversion of the Bechtold composition into one that is waterborne is clearly feasible. Therefore, claim 52 is prima facie obvious over the prior art.

Claims 45-47 and 49-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al., U.S. Patent # 7,378,032. Ueda discloses a paint composition for leather substrates comprising a fluorine resin and a silicone oil (abstract). Exemplary of the fluorine resins are those containing one of several different reactive groups among which include hydroxyl groups and carboxyl groups (column 2, lines 13-16 and column 3, lines 53-56). The curing agents are mostly confined to those

outlined in column 6, lines 21-24. As for the silicone oil component (1 to 50 parts based on 100 parts resin according to (column 8, lines 39-41), it is invariably a diorganosiloxane differing primarily in the identity of the endgroups among which include hydroxyl groups, epoxy groups, carboxyl groups, polyalkylene oxide groups, etc. (column 7, line 40 to column 8, line 20). Given the relatively small number of combinations of the preferred fluororesin (approximately six different types of curable group), curing agent (five different types), and silicone oil (nonreactive or having one of five different types of functional group of which all are mentioned in the claims), it is the Examiner's position that a composition comprising

(i) a hydroxyl-functional fluororesin, an amine curing agent, and any one of the claimed stain proofing agents, or

(ii) a carboxyl-functional fluororesin, an amine or epoxy curing agent, and any one of the claimed stain proofing agents

would have been obvious to the skilled artisan at the time of the invention.

As for claims 46 and 47, neither of these limitations is expressly taught by Ueda. On the other hand, these claims only serve to limit particular embodiments of the claimed invention and the reference teaches not only these permutations, but also others. That is to say, claim 46, for instance, states only that, *where the fluororesin contains hydroxyl groups* the OH value is of a specified magnitude, but of course claim 46 still embraces that embodiment of the claim where the fluororesin contains carboxyl

groups. Likewise, claim 47 stipulates merely that, in the event that the stain-proofing agent contains amino groups, that the amino equivalence must be at least 1000 but claim 47 still embraces embodiments of the stain-proofing component where the polysiloxane or fluoropolyether is devoid of amino groups.

As for claim 52, to reiterate, the demand to eliminate VOCs from all manner of consumer use products drives a trend towards preparing coatings and other chemical compositions as waterborne formulations wherever feasible and, to the extent that the prior art demonstrates that it is widely known how to prepare aqueous emulsions/dispersions containing each of the materials required by the claims, the conversion of the Ueda composition into one that is waterborne is clearly feasible.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC S. ZIMMER whose telephone number is (571)272-1096. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 9, 2010

/Marc S. Zimmer/
Primary Examiner, Art Unit 1796